Title (en)

NON-INVASIVE MONITORING OF BLOOD METABOLITE LEVELS

Title (de)

NICHTINVASIVE ÜBERWACHUNG VON BLUTMETABOLITSPIEGELN

Title (fr)

SURVEILLANCE NON INVASIVE DE TAUX DE MÉTABOLITE DANS LE SANG

Publication

EP 2440909 B1 20161005 (EN)

Application

EP 10786601 A 20100604

Priority

- US 2010037361 W 20100604
- US 18525809 P 20090609

Abstract (en)

[origin: WO2010144313A2] Solutions for non-invasively monitoring blood metabolite levels of a patient are disclosed. In one embodiment, the method includes: repeatedly measuring a plurality of electromagnetic impedance readings with a sensor array from: an epidermis layer of a patient and one of a dermis layer or a subcutaneous layer of the patient, until a difference between the readings exceeds a threshold; calculating an impedance value representing the difference using an equivalent circuit model and individual adjustment factor data representative of a physiological characteristic of the patient; and determining a blood metabolite level of the patient from the impedance value and a blood metabolite level algorithm, the blood metabolite level algorithm including blood metabolite level data versus electromagnetic impedance data value correspondence of the patient.

IPC 8 full level

G01N 27/02 (2006.01); **A61B 5/00** (2006.01); **G01N 33/49** (2006.01)

CPC (source: EP US)

A61B 5/0531 (2013.01 - EP US); **A61B 5/14532** (2013.01 - EP US); **A61B 5/14546** (2013.01 - EP US); **A61B 5/1468** (2013.01 - US); A61B 5/1495 (2013.01 - EP US); A61B 2562/0215 (2017.07 - EP US); A61B 2562/046 (2013.01 - EP US)

Cited by

US10921274B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)

WO 2010144313 A2 20101216; **WO 2010144313 A3 20110203**; AU 2010259071 A1 20120119; AU 2010259071 B2 20140724; BR PI1011011 A2 20190924; CA 2764637 A1 20101216; CA 2764637 C 20180320; CN 102575997 A 20120711; CN 102575997 B 20141217; EP 2440909 A2 20120418; EP 2440909 A4 20140326; EP 2440909 B1 20161005; JP 2012529349 A 20121122; JP 5682876 B2 20150311; RU 2011153773 A 20130720; RU 2537083 C2 20141227; US 2012130212 A1 20120524; US 2016166187 A1 20160616; US 9307935 B2 20160412

DOCDB simple family (application)

US 2010037361 W 20100604; AU 2010259071 A 20100604; BR PI1011011 A 20100604; CA 2764637 A 20100604; CN 201080031334 A 20100604; EP 10786601 A 20100604; JP 2012515001 A 20100604; RU 2011153773 A 20100604; US 201013377162 A 20100604; US 201615050745 A 20160223